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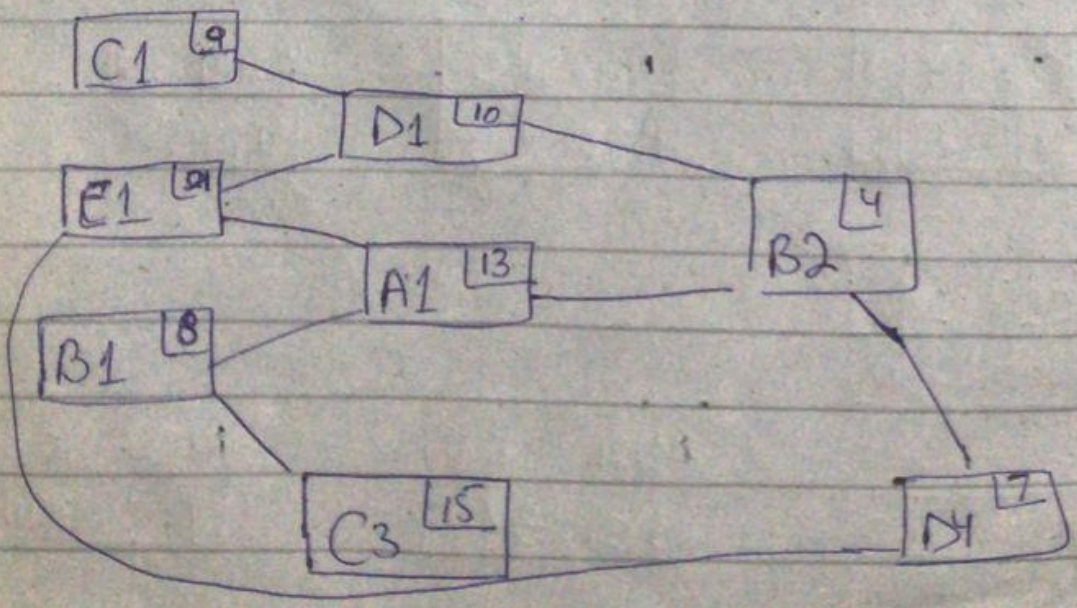
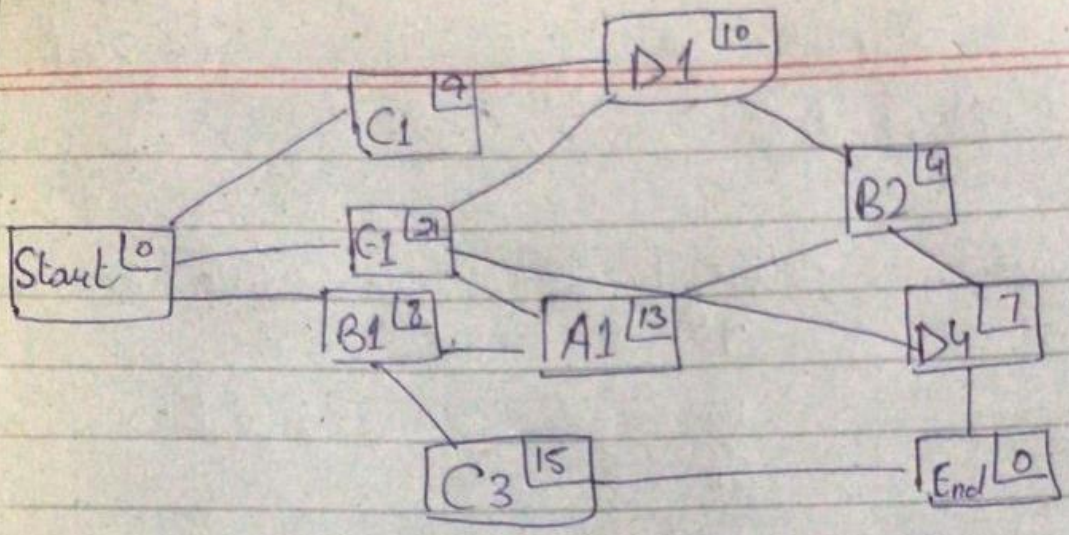
Quiz # 4

Q#1) Design CPM & Pert

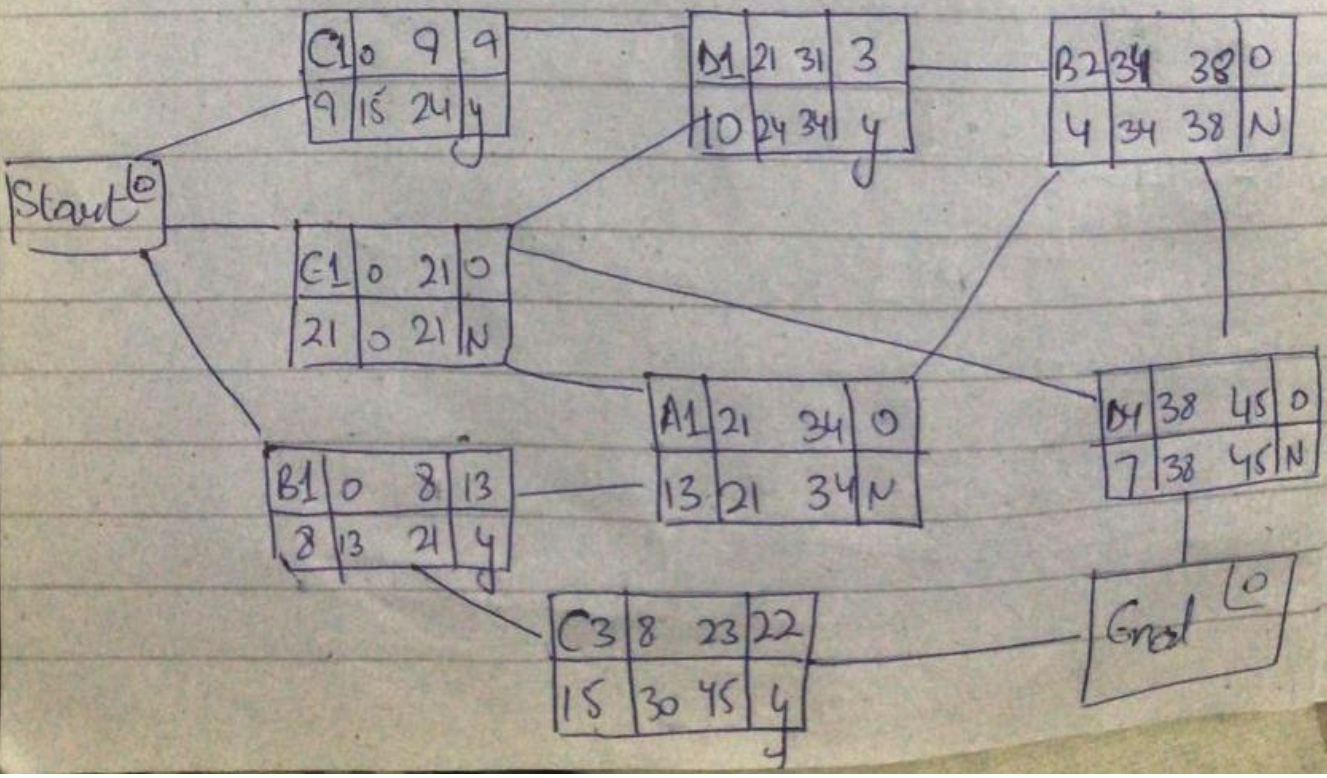
Activity Name	Activity Time (Week)	Immediate Predecessor
C1	9	-
D1	10	C1, E1
E1	21	-
A1	13	E1, B1
B1	8	-
B2	4	A1, D1
C3	15	B1
D4	7	B2, E1

Network Diagram:





	Week		Month
C1 D1 B2 D4 =	30	/ 4 =	7.5
C1 D1 B2 D4 =	42	/ 4 =	10.5
C1 D4 =	28	/ 4 =	7
C1 A1 B2 D4 =	45	/ 4 =	11.25
B1 A1 B2 D4 =	32	/ 4 =	8
B1 C3 =	23	/ 4 =	5.75



D) E1 A1 B2 D4 = 45

C) B1 C3 = 13+22 = 35 / 7 = 5

#02)

A) C = 1.40 x 1.16 x 1.30 => ~~High~~ Very high

x

1.11 x 1.06 x 1.15 x 1.07 x 0.86 x 0.91 x 0.86 x 0.90 x 0.95 x 0.91 x 0.91 x 1.04 => High

$C_1 = 1.514$

Intermediate Effort = $a_i (Size)^b \times C$

$Effort_I = 2.8 (6000)^{1.20} \times 1.514$

$Effort_I = 144899.0062$

$TDev_I = C (E)^d$

$= 2.5 (144899.0062)^{0.32}$

$TDev_I = 112.0678$

$$SS_i = \frac{E_i}{TDev_i}$$

$$SSi = \frac{144899.0062}{112.0678}$$

$$SSi = 1292.9584$$

$$P_I = \frac{Iloc\ (Size)}{Effout_I}$$

$$P_I = \frac{6000}{14899.0062} \Rightarrow 0.0414$$

B)

Views = Difficult = 3+
Results = 4 = 8+
3GL = 7 Difficult = 10+
Op = 21

$$Nop = (op\ (100 - \%\ reuse))/100$$
$$= (21(100 - 3/25 \times 100))/100$$
$$= (21(100-12))/100$$
$$= \frac{21 \times 88}{100}$$
$$Nop = 18.48$$

$$P = Nop / Effort_I$$
$$P = \frac{18.48}{144899.0062}$$
$$P = 0.000127$$

$$Effort_{ace} = \frac{Nop}{P_{mod}} \Rightarrow \frac{18.48}{0.000127} \Rightarrow 145511.811$$

$$DT_{ace} = c\,(Effort)^{d} \Rightarrow 25\,(145511.811)^{0.32} \Rightarrow 112.219$$

C) $Effort_I = 144899.0062$

$Effort_{ace} = 145511.811$

Cost per Sm = $13000

Therefore;

$Effort_I \times 13000 = 1883687081$

$Effort_{ace} \times 13000 = 189165535543$

Then,

$$\begin{array}{r} 189165535543 \\ -\ 188\,3687081 \\ \hline 7966462 \end{array}$$

Cost Difference